

Docket No.: 049480-0053



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of	:	Customer Number: 20277
David P. RAMER et al.	:	Confirmation Number: 2502
Application No.: 10/786,096	:	Group Art Unit: 2875
Filed: February 26, 2004	:	Examiner: Mark TSIDULKO
For: CONSTRUCTIVE OCCLUSION WITH A TRANSMISSIVE COMPONENT	:	

DECLARATION UNDER 37 C.F.R. §§ 1.131 & 1.132

For Showing Early Date of Invention & For Information Disclosure

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

1. We, David P. Ramer, Jack C. Rains and Matthew Brown, are the inventors of the subject matter disclosed and claimed in the above-identified pending patent application.
2. Our claimed invention was completed in this country prior to Finelite's earliest activity regarding its Series 15 product, including prior to the June 13, 2003 filing date of Finelite's Clark et al. application apparently relating to the Series 15 product (US application publication no. 2004/0252521 to Clark et al.) and thus earlier than any later date on which Finelite may have actually introduced the Series 15 product for use or sale.
3. Initial development work on a Low-Profile Fluorescent Uplight using principles of constructive occlusion began in 1999. Exhibit 1 is a true copy of an October 6, 1999

Technical Note describing our feasibility analysis regarding development of such a light. The October 6, 1999 Technical Note was prepared by Jack Rains for Advanced Optical Technologies, LLC (hereinafter AOT), our employer at the time and the assignee of the above-identified application.

4. Subsequently, the Technical Note (Exhibit 1) was provided to three companies, Finelite, LSI Industries and Metalumen, under non-disclosure agreements with AOT. Exhibit 2 is a true copy of an executed non-disclosure agreement between AOT and Finelite. Exhibit 3 is a true copy of an executed non-disclosure agreement between AOT and LSI Industries. Exhibit 4 is a true copy of an executed non-disclosure agreement between AOT and Metalumen.

5. Discussions with LSI Industries led to the development of a Statement of Work, a Design Agreement and draft License agreement. Collective Exhibit 5 contains true copies of unexecuted versions of these three documents, two of which bear dates from December of 2000. The agreements, however, were never executed.

6. Discussions with Metalumen never progressed beyond the exploratory stages.

7. We developed an initial proposal for a Low-Profile Linear Fluorescent light fixture using principles of constructive occlusion, as described in a February 9, 2000 Statement of Work that we provided to Finelite, a true copy of which is attached hereto as Exhibit 6.

8. Attached Exhibit 7 consists of a cross-section diagram of a design we developed for possible use in the Low-Profile Linear Fluorescent light fixture and simulated photometric performance results for that design, from a simulation performed by AOT personnel on March 11, 2000.

9. Attached Exhibit 8 consists of a cross-section diagram of another design we developed for possible use in the Low-Profile Linear Fluorescent light fixture and simulated

photometric performance results for that design, from a simulation performed by AOT personnel on August 29, 2000.

10. Attached Exhibit 9 consists of a cross-section diagram of another design we developed for possible use in the Low-Profile Linear Fluorescent light fixture and simulated photometric performance results for that design, from a simulation performed by AOT personnel on October 9, 2000.

11. We designed and built a prototype of the Low-Profile Linear Fluorescent light fixture. Exhibit 10 is a true copy of a partial set of mechanical drawings for the prototype fixture. Several sheets of these drawings bear a date of November 3, 2000.

12. Attached Exhibit 11 consists of three photographs of the completed prototype. The prototype shown in those photographs was constructed substantially as shown in drawing Figs. 12 to 16 of our above-identified patent application.

13. We submitted the working prototype (as depicted in Exhibits 10 and 11 and substantially as shown in application drawing Figs. 12 to 16) to Luminaire Testing Laboratory, Inc. for testing. All testing performed by Luminaire Testing Laboratory is considered confidential in that they only provide results to the customer, in this case, to our employer/assignee AOT. Attached Exhibit 12 is a true copy of the February 16, 2001 report of testing of the prototype fixture that Luminaire Testing Laboratory, Inc. provided back to AOT.

14. The test data report (Exhibit 12) shows a cross-section of the fixture tested, exhibiting constructive occlusion with ported cavity and fan in combination with transmissive elements. The fixture cross-section shown in the test report is substantially similar to Fig. 12 of our patent application.

15. The polar plot of the prototype's test performance, on the first page of Exhibit 12, clearly illustrates the results of combining constructive occlusion and a ported cavity and fan together with transmissive elements. The first element, constructive occlusion, provides a reduction in light at 0°. Without constructive occlusion, the amount of light emitted through the aperture at 0° would be too great and would adversely affect the fixture's uniformity. Instead of losing the light that is reduced at 0°, the light is recycled and metered out through the port and fan structures. This is illustrated by the spike of light between approximately 105° and 120° in the polar plot. The final illumination component involves the use of Transmissive elements. The use of these materials in the lower portion of the cavity results in the cosine-squared distribution of light at 180°.

16. Following successful completion and testing of the prototype design, Finelite decided that they wanted to save money and complete the final commercial product design themselves. AOT offered a license to Finelite and offered to allow us to continue to work with Finelite personnel to develop a commercially viable product embodying the concepts demonstrated by the prototype.

17. Attached Exhibit 13 is a true copy of an April 4, 2001 letter from AOT to Terry Clark of Finelite outlining terms for a new agreement between the companies regarding further work to develop a commercial implementation. In paragraph 3 of the letter, for example, AOT offered to make its personnel available to provide engineering support for continued development work on the product.

18. Attached Exhibit 14 consists of a cross-section diagram of a design representing a modification of the prototype Low-Profile Linear Fluorescent light fixture and simulated

photometric performance results for that design, from a simulation performed by AOT personnel on May 22, 2001.

19. Attached Exhibit 15 consists of a cross-section diagram of a design representing another modification of the prototype Low-Profile Linear Fluorescent light fixture and simulated photometric performance results for that design, from simulations performed by AOT personnel on June 15, 2001.

20. Exhibit 16 is a true copy of a License Agreement, executed on June 8, 2001, between AOT and Finelite, Inc. The License Agreement granted Finelite a right to make, use and sell units of the low profile fluorescent fixture (section 1.7 and section 2.1). The License Agreement includes an Appendix A describing the fixture, and that description consists of a copy of the February 16, 2001 report of testing of the prototype fixture received from Luminaire Testing Laboratory, Inc.

21. In the License Agreement, Finelite promised to commercialize the fixture by June 1, 2002 (Exhibit 16, section 1.3, and section 3.5 and section 4.1), although the parties deleted or modified the language regarding this requirement as shown by the initialed handwritten amendments, shown in Exhibit 16.

22. Over the course of the next 18 months, Finelite attempted to develop a commercial product based on the prototype design. During this period, we provided ongoing engineering support for that commercialization work, and in so doing, we collaborated with Finelite personnel to address a variety of issues with their attempts to design a commercial product. As proposed in the April 4, 2001 letter (Exhibit 13), AOT provided 120 hours of optical design and technical assistance by its personnel to assist in the commercial development of a

Finelite product. Virtually all of this time was used to model the optical design and to assist Finelite in identifying highly reflective materials.

23. As a first example of the work referred to in the preceding paragraph, attached Exhibit 17 consists of a cross-section diagram of a design representing another modification of the prototype Low-Profile Linear Fluorescent light fixture and simulated photometric performance results for that design, from simulations performed by AOT personnel on December 7, 2001.

24. As a second example of the work referred to in paragraph 22, attached Exhibit 18 consists of a diagram of a design representing another modification of the prototype Low-Profile Linear Fluorescent light fixture and simulated photometric performance results for that design, from simulations performed by AOT personnel on June 2, 2002.

25. Finelite terminated the original License Agreement with Advanced Optical Technologies, LLC on January 24, 2003.

26. To the best of our knowledge:

a) All of our activities and of AOT, as discussed above, were done on a strictly confidential basis, under the non-disclosure agreements and/or the confidentiality provisions of the license agreement;

b) None of the documents discussed above were distributed publicly;

c) None of the testing or development work discussed above involved any kind of public demonstration or use of the fixture; and

d) There was no offer to sell a light fixture of the type under development.

27. To the best of our knowledge, all activities of other parties involved with regard to the Low-Profile Fluorescent Uplight concepts, particularly of Finelite, LSI Industries and

Metalumen, were likewise confidential, at least up until Finelite terminated the License Agreement with Advanced Optical Technologies, LLC.

28. Finelite filed a patent application on their design, which apparently corresponds to the Series 15 product, on June 13, 2003; and that application published (US application publication no. 2004/0252521 to Clark et al.) after the filing date of this application.

29. We were informed that Finelite had begun distributing preliminary announcements regarding the Series 15 product, sometime in the August to September 2003 time frame. Attached as Exhibit 19 is a true copy of a facsimile of Finelite, "Series 15 – Technical Data Sheet," which we received from the Katie Group on October 21, 2003.

30. It is our understanding that Finelite officially announced its Series 15 low profile fluorescent luminaire for sale on November 3, 2003. A recently reprinted copy of Finelite, "Introducing Series 15, for Immediate Release," Union City, CA, dated November 3, 2003 is attached hereto as Exhibit 20.

31. It is our belief that inventive subject matter claimed in our patent application is embodied in the Series 15 low profile fluorescent luminaire, as offered and sold by Finelite, apparently beginning in October or November of 2003.

32. As a result of a litigation between AOT and Finelite regarding the Series 15 Finelite product, involving a number of issued patents and other intellectual property rights of AOT, Finelite, Inc. entered into and a Settlement, Release and License Agreement with AOT in March of 2004.

We each hereby declare that all statements made herein of our own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so


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made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Date: November 30, 2005 .


David P. Ramer

Date: November 30, 2005


Jack C. Rains

Date: November 30, 2005


Matthew Brown